

# **Appendix C      Emissions Inventory Database Structure Used in the RAIMI Process**

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## 1.0 Primary Inventory Table for RAIMI

The table presented in this appendix is a sample Primary Inventory Table for RAIMI. This represents one example of the format for the emission inventory for a cumulative multisource assessment; other processes and models may require different formats.

State field names are included in this table for illustration purposes only. Database field names from a particular State or Federal regulatory emissions databases would most likely be different.

*Source:* EPA's Regional Air Impact Modeling Initiative (RAIMI). See [http://www.epa.gov/earth1r6/6pd/rcra\\_c/raimi/raimi.htm](http://www.epa.gov/earth1r6/6pd/rcra_c/raimi/raimi.htm).

Project Inventory Field Name	Field Type	Data Description	Corresponding State Field Name
<b>Emission Source Attributes - Industrial Facility References</b>			
Acct_No.	Text (7)	Unique identifier assigned by the state for each industrial facility at which activities produce air-polluting contaminants. The definition of an account is "an all encompassing entity which includes the plants, facilities, emission points, and abatements at a single geographic location under a single ownership."	AC-ACCOUNT
Acct_Name-1	Text (12)	First 12 characters of the account name (company name).	AC-FIRST-12
Acct_Name-2	Text (24)	Last 24 characters of the account name (company name).	AC-LAST-24
Sitename	Text (25)	The name of the industrial facility covered by the account.	AC-SITENAME
County	Text (13)	The county in which the account's industrial facility is located.	CCD-COUNTY-NAME
Nearest_City	Text (15)	The city nearest to the account's industrial facility.	AC-NEARCITY
<b>Emissions Data</b>			
Last_EI_Date	Long Integer	Date for which the most recent emissions inventory data was supplied. Julian date format - yyddd	AC-LAST-EI-DATE
CAS_No	Long Integer	A number assigned to a chemical by Chemical Abstract Service (CAS) as a unique identifier for that chemical.	CN-CAS-NO
Long_Term_Allow	Double	Allowable (permitted) emissions rate reported as amount per unit time [tons/yr].	CE-LONGTRM-ALLOW
Actual_Annual	Double	Actual annual speciated emission rate reported as volume of emissions actually entering the atmosphere per year [tons/yr].	CE-ACTUAL

Project Inventory Field Name	Field Type	Data Description	Corresponding State Field Name
<b>Emission Source Parameters</b>			
Unique_Point_Name	Text (32)	Unique identifier assigned by analyst for each source (not a regulatory database field).	(Not applicable)
EPN	Text (10)	Emission point number; a company or state number designating an emission point (the point or area at or from which contaminant emissions enter the atmosphere). The number is unique to each account (company name).	PT-EPN
Point_Name	Text (25)	Emission point name; assigned by the company or state.	PT-POINT-NAME
Point_Type	Text (2)	Emission point type: St = stack source, Fl = flare source, Fu = fugitive source.	PT-POINT-TYPE
UTM_Zone	Integer	Abbreviated number of the UTM zone (the universal transverse Mercator coordinate system): 3 = zone 13, 4 = zone 14, 5 = zone 15.	PT-UTMZONE
UTM_E	Long Integer	The east coordinate of an emission point location in meters from a particular reference line in the UTM coordinate system.	PT-EASTMETERS
UTM_N	Long Integer	The north coordinate of an emission point location point in meters from a particular reference line in the UTM coordinate system.	PT-NORTHMETERS
Height	Integer	Stack height as the vertical height of the emission point above base elevation (ground level) [feet].	PT-HEIGHT
Temp	Integer	Stack gas exit temperature of the gas stream exiting the emission point [degrees Fahrenheit].	PT-TEMP
SCFM	Double	Gas flow rate of the gas stream feeding a flare [thousands of standard cubic feet per minute at 68 degrees Fahrenheit].	PT-SCFM
LHV	Long Integer	Average of lowest heats of combustion for flare feed stream constituents [BTU/SCF].	PT-LOWHEATVAL
Mol_Wt	Double	Molecular weight: the average value of constituents of a stream feeding a flare.	PT-MOLWT
Length	Integer	Length of the longest side of a rectangular area encompassing a fugitive source [feet] (applicable for fugitive sources only).	PT-LENGTH
Width	Integer	Length of the shortest side of a rectangular area encompassing a fugitive source [feet] (applicable for fugitive sources only).	PT-WIDTH
Rt_Degrees	Integer	Degree rotation from north of the long axis of a fugitive point [degrees].	PT-DEGREES

<b>Project Inventory Field Name</b>	<b>Field Type</b>	<b>Data Description</b>	<b>Corresponding State Field Name</b>
Rt_Dir	Text (1)	Direction of the offset of the long axis of the rectangle encompassing a fugitive point from a north-south line: 0 = no data, 1 = east, 2 = west.	PT-OFNORTH
Hordischarge	Text (1)	Direction of stack discharge: 0 = vertical discharge, 1= horizontal discharge, default is vertical discharge (applicable for stack sources only).	PT-HORDISCHARGE
Diameter	Double	Stack diameter of the emission point opening [feet] (for non-circular openings it is the diameter of a circle with the same area as the emission point opening; applicable for stack sources only).	PT-DIAMETER
Velocity	Double	Stack gas exit velocity of the gas stream exiting the emission point [feet per second] (applicable for stack sources only).	PT-VELOCITY
<b>Emission Source Attributes - Source References</b>			
FIN	Text (10)	Facility identification number; the number used to identify the smallest unit of equipment which generates contaminants. This number will be supplied by the company in permit applications or during inventory updates, or will be assigned by the state if not supplied by the company, and is unique to each account (company name).	FC-FIN
Facility_Name	Text (48)	Name of the facility; supplied by the company during permit application or inventory update, or by the state if not supplied by the company.	FC-FAC-NAME
Permit	Text (8)	Permit designation assigned; unique in itself. Legal documents (permits & exemptions) governing the air-polluting activities of an account.	CE-PERMIT
SCC	Long Integer	Source classification code; an EPA promulgated code typifying a process.	FC-SCC-CODE